

2004

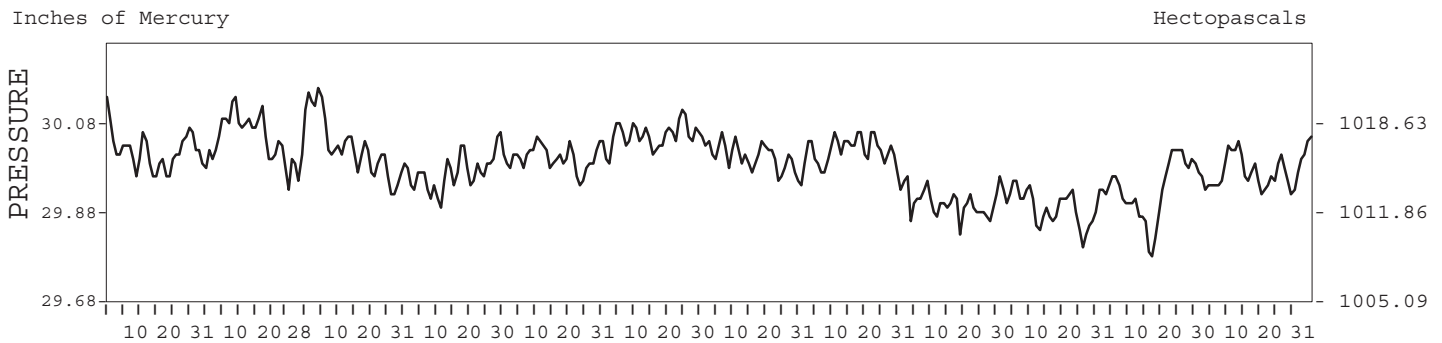
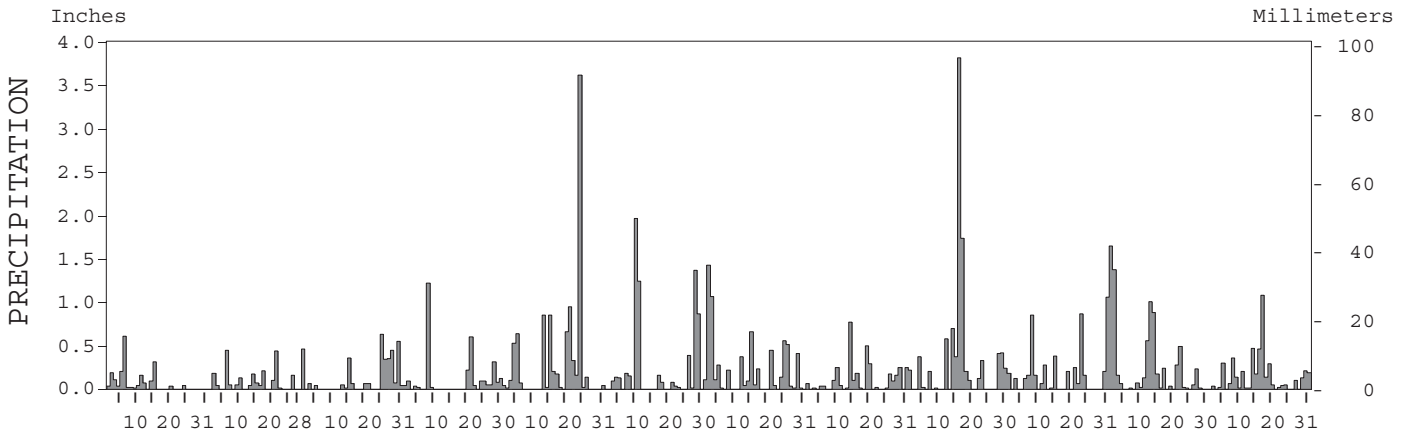
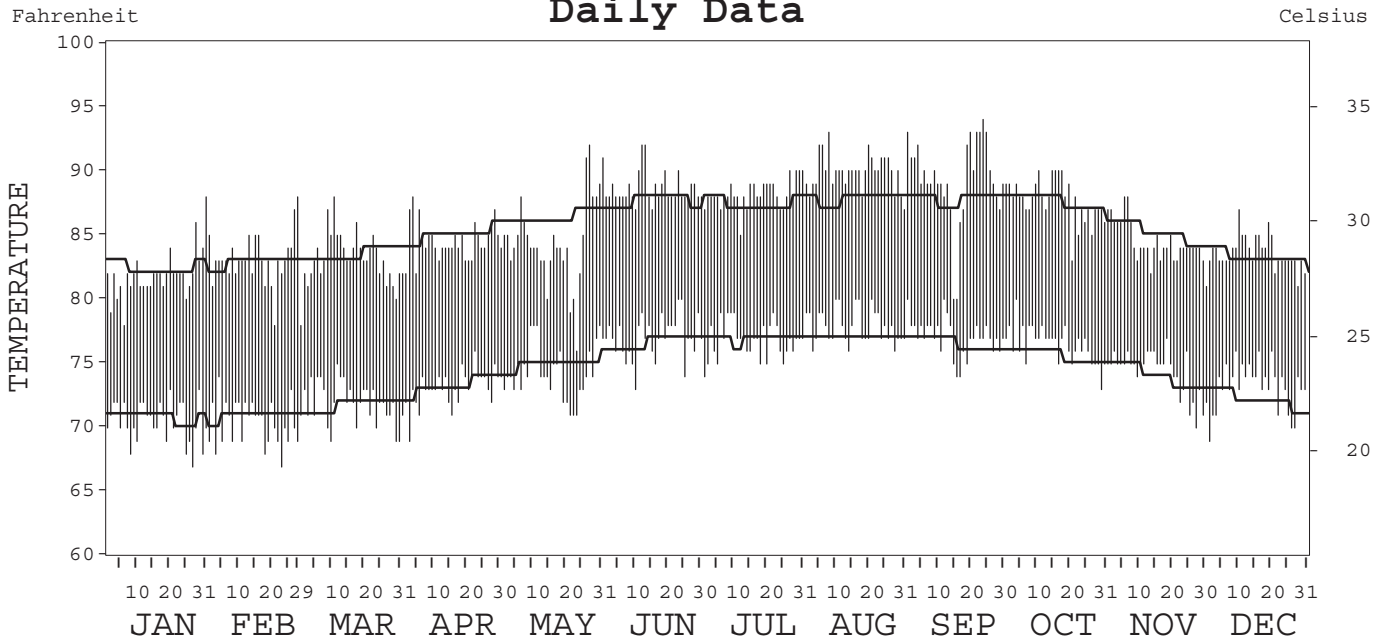
# LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-5566

SAN JUAN,  
PUERTO RICO (SJU)

## Daily Data



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NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2004

## SAN JUAN, PR (SJU)

LATITUDE: 18° 26' 29" N      LONGITUDE: 66° 00' 08" W      ELEVATION (FT): GRND: 7      BARO: 10      TIME ZONE: ATLANTIC (UTC + 4)      WBAN: 11641

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	81.9	83.0	83.3	84.6	84.6	88.6	88.2	89.9	89.3	87.7	84.6	83.6	85.8	
	HIGHEST DAILY MAXIMUM	88	88	88	88	92	92	90	93	94	90	88	87	94	
	DATE OF OCCURRENCE	31	28	10	03	27	13+	31+	08	24	18+	07+	11	SEP 24	
	MEAN DAILY MINIMUM	70.5	70.4	71.9	73.1	74.4	77.0	76.8	77.9	77.1	76.5	74.4	73.2	74.4	
	LOWEST DAILY MINIMUM	67	67	69	69	71	73	74	76	74	73	70	69	67	
	DATE OF OCCURRENCE	27	23	30+	02	23+	10	01	28+	17+	30	28	02	FEB 23	
	AVERAGE DRY BULB	76.2	76.7	77.6	78.9	79.5	82.8	82.5	83.9	83.2	82.1	79.5	78.4	80.1	
	MEAN WET BULB	71.6	72.3	72.1	73.7	75.2	76.1	76.2	76.8	76.4	76.0	73.4	73.8	74.5	
	MEAN DEW POINT	69.3	69.9	69.6	71.4	73.7	73.3	73.6	74.1	73.7	73.4	70.7	72.0	72.1	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	3	5	4	21	14	5	0	0	0	52
	MAXIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MINIMUM ≤ 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	
	COOLING DEGREE DAYS	351	348	397	421	457	541	553	593	558	538	442	423	5622	
RH	MEAN (PERCENT)	80	81	79	79	85	74	76	75	76	77	76	82	78	
	HOUR 02 LST	87	89	86	86	90	81	83	82	83	84	81	88	85	
	HOUR 08 LST	84	87	82	82	85	76	77	76	78	79	77	87	81	
	HOUR 14 LST	70	70	68	69	78	65	67	64	67	69	70	74	69	
	HOUR 20 LST	80	83	82	80	86	77	79	77	77	77	76	82	80	
S	PERCENT POSSIBLE SUNSHINE	53	56	77	79	64	77	75	62	61	46	35			
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	0	0	0	1	0	0	0	0	0	0	0	1	
	THUNDERSTORMS	0	0	0	1	4	4	6	3	12	8	2	1	41	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	30.02	30.04	30.03	29.97	30.00	30.05	30.00	30.01	29.90	29.89	29.93	29.98	29.98	
	MEAN SEA-LEVEL PRESS. (IN.)	30.02	30.05	30.03	29.97	30.01	30.06	30.01	30.01	29.90	29.90	29.94	29.98	29.99	
WINDS	RESULTANT SPEED (MPH)	1.2	0.8	2.5	3.1	1.5	2.3	1.4	0.8	1.1	0.7	5.7	2.0	1.0	
	RES. DIR. (TENS OF DEGS.)	08	05	11	09	19	03	26	32	24	17	05	07	07	
	MEAN SPEED (MPH)	6.1	7.6	10.2	7.6	9.3	8.7	8.0	7.6	6.2	5.5	8.5	7.3	7.7	
	PREVAIL. DIR. (TENS OF DEGS.)	06	09	07	07	08	09	09	09	09	06	03	06	09	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	26	29	28	28	25	25	25	25	49	24	28	25	49	
	DIR. (TENS OF DEGS.)	07	07	06	07	07	06	07	05	06	06	03	07	06	
	DATE OF OCCURRENCE	04	06	04	29	16+	06	04	30	15	31	12	07	SEP 15	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	35	36	37	32	31	29	31	31	71	28	33	29	71	
DIR. (TENS OF DEGS.)	07	07	07	06	07	07	07	05	06	07	04	04	06		
DATE OF OCCURRENCE	04	06	08	29	16	09+	04+	30	15	31	12	29+	SEP 15		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.96	2.60	3.17	3.07	9.38	7.02	6.78	3.49	9.81	6.59	5.82	4.66	64.35	
	GREATEST 24-HOUR (IN.)	0.61	0.54	0.63	1.24	3.73	3.04	2.15	0.77	4.89	2.33	1.38	1.18	4.89	
	DATE OF OCCURRENCE	06	20-21	24	07-08	22-23	09-10	01-02	13	15-16	30-31	01	16-17	SEP 15-16	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	16	16	16	16	19	17	22	21	17	17	21	25	223	
PRECIPITATION ≥ 0.10	6	9	6	5	13	11	13	12	15	14	11	15	130		
PRECIPITATION ≥ 1.00	0	0	0	1	1	3	2	0	2	2	2	1	14		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	GREATEST 24-HOUR (IN.)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0		

# NORMALS, MEANS, AND EXTREMES

## SAN JUAN, PR (SJU)

LATITUDE: 18° 26' 29" N      LONGITUDE: 66° 00' 08" W      ELEVATION (FT): GRND: 7      BARO: 10      TIME ZONE: ATLANTIC (UTC + 4)      WBAN: 11641

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	82.4	82.8	83.4	84.9	86.3	87.6	87.4	87.8	87.8	87.5	85.1	83.2	85.5
	MEAN DAILY MAXIMUM	49	83.2	83.6	84.6	85.8	87.0	88.5	88.4	88.8	88.8	88.4	85.9	83.9	86.4
	HIGHEST DAILY MAXIMUM	50	92	96	96	97	96	97	95	97	97	98	96	94	98
	YEAR OF OCCURRENCE		1983	1983	1983	1983	1980	1988	1981	1980	1981	1981	1981	1989	OCT 1981
	MEAN OF EXTREME MAXS.	49	87.2	87.8	89.7	91.1	92.1	92.7	91.8	92.2	92.6	92.5	90.0	87.6	90.6
	NORMAL DAILY MINIMUM	30	70.8	70.9	71.7	73.2	74.9	76.6	76.9	77.0	76.5	75.6	74.0	72.1	74.2
	MEAN DAILY MINIMUM	49	70.5	70.4	71.1	72.7	74.3	75.8	76.5	76.5	76.0	75.2	73.7	72.0	73.7
	LOWEST DAILY MINIMUM	50	61	62	60	64	66	69	69	70	69	67	66	59	59
	YEAR OF OCCURRENCE		1962	1968	1957	1968	1962	1957	1959	1956	1960	1959	1969	2002	DEC 2002
	MEAN OF EXTREME MINS.	49	66.2	66.3	66.9	68.9	71.1	72.9	73.1	73.5	73.2	71.7	70.1	68.0	70.2
	NORMAL DRY BULB	30	76.6	76.9	77.6	79.1	80.6	82.1	82.2	82.4	82.2	81.6	79.6	77.7	79.9
	MEAN DRY BULB	49	76.8	77.0	77.9	79.3	80.7	82.2	82.4	82.4	82.4	81.8	79.9	78.1	80.1
	MEAN WET BULB	19	71.5	70.9	71.3	73.0	71.2	72.0	73.2	77.1	76.6	76.0	74.5	72.8	73.3
	MEAN DEW POINT	19	68.9	67.9	68.2	70.0	68.8	69.6	70.7	74.8	74.3	74.0	72.4	70.3	70.8
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.4	1.0	2.0	4.3	7.1	11.7	11.1	13.5	13.1	10.5	2.0	0.8	77.5	
MAXIMUM ≤ 32°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MINIMUM ≤ 32°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MINIMUM ≤ 0°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
H/C	NORMAL HEATING DEG. DAYS	30	0	0	0	0	0	0	0	0	0	0	0	0	0
	NORMAL COOLING DEG. DAYS	30	360	332	388	421	484	513	533	539	515	513	436	392	5426
RH	NORMAL (PERCENT)	30	76	74	73	73	76	77	77	78	78	79	78	77	76
	HOUR 02 LST	30	81	80	79	80	83	83	83	84	84	85	84	82	82
	HOUR 08 LST	30	81	79	76	74	76	76	78	79	78	79	80	80	78
	HOUR 14 LST	30	64	62	60	61	65	65	66	67	67	67	68	66	65
	HOUR 20 LST	30	76	74	73	74	76	77	78	78	78	79	78	77	76
S	PERCENT POSSIBLE SUNSHINE	48	69	70	76	71	64	65	69	68	62	64	59	62	67
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	THUNDERSTORMS	49	0.3	0.3	0.3	1.1	4.2	4.8	5.0	6.0	8.4	7.8	3.3	0.9	42.4
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	41	3.9	4.0	3.9	4.3	5.1	4.8	4.6	4.5	4.8	4.7	4.4	4.2	4.4
	MIDNIGHT-MIDNIGHT (OKTAS)	32	3.5	3.6	3.6	3.7	4.5	4.1	4.2	4.0	4.2	4.0	4.0	3.8	3.9
	MEAN NO. DAYS WITH:														
	CLEAR	41	9.0	7.5	9.4	7.5	3.7	4.4	5.2	5.5	4.0	4.7	5.4	6.7	73.0
PARTLY CLOUDY	41	18.0	16.3	17.2	16.4	15.5	15.8	17.2	17.4	16.6	17.0	17.6	18.2	203.2	
CLOUDY	41	4.0	4.4	4.4	6.1	11.8	9.8	8.6	8.1	9.4	9.4	6.9	6.1	89.0	
PR	MEAN STATION PRESSURE (IN)	30	29.97	29.97	29.95	29.92	29.92	29.96	29.98	29.94	29.90	29.87	29.89	29.94	29.93
	MEAN SEA-LEVEL PRES. (IN)	19	30.04	30.03	30.01	29.97	29.97	30.02	30.04	30.00	29.95	29.92	29.93	30.01	29.99
WINDS	MEAN SPEED (MPH)	36	7.8	8.3	8.6	8.4	8.0	8.7	9.4	8.4	7.4	6.5	7.3	7.7	8.0
	PREVAIL. DIR (TENS OF DEGS)	28	09	09	07	07	09	09	09	09	07	09	07	07	09
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	8	28	29	32	31	28	32	29	34	79	37	33	31	79
	DIR. (TENS OF DEGS)		05	07	07	06	06	07	07	04	05	04	36	02	05
	YEAR OF OCCURRENCE		2000	2004	1997	2002	2002	1998	2003	1998	1998	2001	1999	2003	SEP 1998
	MAXIMUM 5-SECOND:														
SPEED (MPH)	8	37	40	37	35	31	45	37	47	93	43	39	39	93	
DIR. (TENS OF DEGS)		02	06	07	07	07	10	07	07	07	04	36	02	07	
YEAR OF OCCURRENCE		2000	2001	2004	2002	2004	2003	1997	1998	1998	2001	1999	2003	SEP 1998	
PRECIPITATION	NORMAL (IN)	30	3.02	2.30	2.14	3.71	5.29	3.52	4.16	5.22	5.60	5.06	6.17	4.57	50.76
	MAXIMUM MONTHLY (IN)	50	7.60	6.69	5.41	10.37	14.99	10.96	9.35	11.76	15.15	15.06	15.96	16.81	16.81
	YEAR OF OCCURRENCE		1977	1982	1958	1988	1965	1965	1961	1955	1996	1970	1979	1981	DEC 1981
	MINIMUM MONTHLY (IN)	50	0.61	0.20	0.72	0.08	0.44	0.29	1.12	1.83	1.73	1.17	1.91	0.68	0.08
	YEAR OF OCCURRENCE		1978	1983	1970	1997	1972	1985	1974	1994	1987	1979	1980	1963	APR 1997
	MAXIMUM IN 24 HOURS (IN)	50	5.08	2.75	3.91	7.20	4.74	3.55	2.91	5.30	8.84	5.04	7.07	8.40	8.84
	YEAR OF OCCURRENCE		1969	1989	1969	1988	1986	1965	1993	2000	1989	1985	1979	1981	SEP 1989
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	17.6	13.6	12.8	12.0	14.6	14.0	17.9	18.3	17.3	17.3	19.4	19.2	194.0	
PRECIPITATION ≥ 1.00	30	0.3	0.2	0.3	0.9	1.6	0.6	0.8	1.0	1.1	1.0	1.1	0.9	9.8	
SNOWFALL	NORMAL (IN)	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	MAXIMUM MONTHLY (IN)	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
	YEAR OF OCCURRENCE										1989				SEP 1989
	MAXIMUM IN 24 HOURS (IN)	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
	YEAR OF OCCURRENCE										1989				SEP 1989
	MAXIMUM SNOW DEPTH (IN)	48	0	0	0	0	0	0	0	0	0	0	0	0	0
YEAR OF OCCURRENCE															
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

PRECIPITATION (inches) 2004 SAN JUAN, PR (SJU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	2.69	0.71	1.13	1.01	1.04	2.64	3.35	4.08	9.29	6.60	10.90	7.82	51.26
1976	1.50	2.18	2.05	3.94	2.96	2.96	2.48	5.12	11.44	7.69	2.77	2.11	47.20
1977	7.60	1.02	1.73	0.96	4.04	1.49	4.64	4.42	4.71	5.94	12.44	3.82	52.81
1978	0.61	1.56	3.52	8.27	7.14	2.86	3.46	3.21	6.34	4.88	5.40	2.61	49.86
1979	1.29	1.80	2.25	4.28	12.13	5.76	6.61	9.38	10.11	1.17	15.96	3.81	74.55
1980	1.75	1.67	1.47	2.55	5.19	1.31	2.19	3.17	4.85	6.71	1.91	3.18	35.95
1981	2.55	2.72	4.39	2.89	11.02	5.48	7.04	3.32	2.98	9.32	4.94	16.81	73.46
1982	2.53	6.69	0.98	1.01	10.26	5.24	2.33	1.93	2.87	2.06	4.34	4.76	45.00
1983	0.69	0.20	1.47	8.54	3.85	1.91	6.53	5.15	2.75	4.06	3.25	3.50	41.90
1984	1.96	3.13	0.82	0.28	3.75	6.85	2.66	6.04	3.16	5.10	5.65	4.69	44.09
1985	2.80	2.40	1.84	1.02	5.95	0.29	2.85	4.33	5.44	11.10	4.54	2.80	45.36
1986	2.18	1.13	1.61	8.93	12.80	1.52	1.94	5.19	1.98	8.54	5.87	3.59	55.28
1987	2.16	1.20	5.17	8.88	12.17	7.07	3.26	2.48	1.73	2.70	7.49	7.69	62.00
1988	3.83	2.27	1.76	10.37	6.06	1.45	4.02	11.31	5.49	4.12	5.68	4.07	60.43
1989	2.96	6.05	3.39	2.63	4.88	2.97	5.54	7.88	14.83	2.09	4.95	2.50	60.67
1990	4.56	3.02	3.14	1.05	2.44	4.32	5.76	3.42	2.23	8.65	5.33	5.03	48.95
1991	2.57	2.26	1.99	1.76	3.23	2.77	3.30	1.94	5.00	1.84	6.16	2.71	35.53
1992	4.03	1.19	1.47	2.12	8.76	5.55	4.38	4.00	5.35	1.74	11.98	4.72	55.29
1993	2.35	0.51	0.78	6.55	4.48	5.46	7.34	3.01	4.36	2.78	4.34	3.00	44.96
1994	3.39	1.69	1.38	2.75	1.69	4.49	3.58	1.83	5.30	3.52	8.32	3.04	40.98
1995	3.69	3.57	1.29	2.98	9.47	4.66	4.93	5.15	7.17	6.11	3.09	3.84	55.95
1996	5.74	2.44	2.06	5.04	2.39	6.02	7.64	6.94	15.15	2.55	7.98	3.29	67.24
1997	4.01	4.58	1.83	0.08	3.38	0.98	4.75	6.86	3.56		6.82	1.02	
1998	7.29	3.72	3.48	4.14	3.67	3.25	7.18	7.80	10.47	6.82	6.74	7.99	72.55
1999	3.24	2.74	0.75	2.53	3.99	5.53	5.81	7.34	5.82	7.38	9.84	6.15	61.12
2000	2.37	1.01	0.78	1.20	4.72	2.97	3.67	9.52	2.96	3.73	3.76	3.08	39.77
2001	2.91	3.27	1.59	2.27	5.90	2.01	3.57	6.44	5.05	5.00	6.25	11.79	56.05
2002	3.33	0.96	1.13	4.85	3.24	1.82	5.16	6.70	7.45	4.81	2.65	4.59	46.69
2003	4.59	2.22	1.48	9.37	1.67	3.43	4.70	5.65	4.50	4.83	11.26	5.25	58.95
2004	1.96	2.60	3.17	3.07	9.38	7.02	6.78	3.49	9.81	6.59	5.82	4.66	64.35
POR= 54 YRS	3.17	2.37	0.73	1.71	3.71	2.59	3.89	3.46	6.56	2.11	3.47	1.82	35.59

WBAN : 11641

AVERAGE TEMPERATURE (°F) 2004 SAN JUAN, PR (SJU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	76.9	77.2	78.4	79.6	81.0	82.9	83.0	82.7	82.1	81.6	79.8	77.5	80.2
1976	76.3	76.6	76.8	78.5	80.5	81.7	83.1	83.5	83.3	82.5	80.9	78.3	80.2
1977	77.0	77.6	78.3	80.2	80.9	81.9	80.6	81.0	81.1	81.9	80.3	79.3	80.0
1978	78.3	79.2	79.8	80.1	80.8	82.3	83.1	83.2	83.9	82.7	81.8	79.6	81.2
1979	78.5	78.7	77.8	79.4	81.3	83.8	83.5	83.0	81.8	83.0	80.6	78.7	80.8
1980	78.2	78.6	79.2	80.8	83.8	85.1	85.2	85.1	84.5	84.4	82.2	80.7	82.3
1981	79.8	79.4	80.9	80.3	83.4	84.2	85.0	83.8	84.3	83.3	81.6	78.7	82.1
1982	78.5	77.8	78.0	80.4	81.0	82.9	83.3	84.6	84.6	83.8	80.2	78.0	81.1
1983	78.5	79.9	82.2	81.8	83.2	85.4	84.2	84.0	84.3	83.6	81.4	79.9	82.4
1984	78.1	77.8	80.2	81.8	81.1	82.4	82.6	82.6	82.2	81.3	78.7	77.3	80.5
1985	76.1	77.3	76.7	78.3	80.4	83.0	83.5	83.4	81.7	79.6	79.0	76.8	79.7
1986	75.5	76.0	77.4	79.0	79.1	81.6	82.0	82.2	82.5	81.4	79.1	77.7	79.5
1987	76.7	77.4	78.0	81.2	81.6	81.7	82.7	83.7	83.8	83.3	80.6	79.7	80.9
1988	76.9	76.6	77.8	80.4	82.4	84.3	83.6	82.8	82.2	81.6	79.8	76.9	80.4
1989	76.2	76.0	76.1	78.8	80.3	81.2	81.8	82.3	82.3	81.7	80.0	79.2	79.7
1990	77.1	76.4	76.5	79.1	81.8	82.4	82.6	82.9	83.4	82.1	80.7	77.5	80.2
1991	77.0	77.8	78.6	79.2	81.0	83.2	83.1	83.9	83.3	82.4	79.9	77.0	80.5
1992	77.1	78.2	78.9	80.8	81.3	83.4	82.4	82.7	82.3	84.0	80.8	79.3	80.9
1993	77.3	78.5	79.3	80.3	82.1	83.3	82.8	84.2	83.0	82.7	80.9	78.9	81.1
1994	77.9	78.0	79.3	79.7	82.8	82.8	82.9	83.8	83.3	82.8	81.1	79.7	81.2
1995	78.0	78.7	77.2	80.6	81.5	83.3	84.2	84.5	84.9	82.3	80.9	80.0	81.3
1996	78.2	77.9	79.1	79.1	80.3	81.3	81.6	81.8	81.8	81.6	78.8	76.7	79.9
1997	76.2	76.0	76.6	80.3	81.5	83.4	83.1	83.1	83.2	82.4	80.9	80.1	80.6
1998	78.7	78.7	78.2	79.6	81.7	83.1	82.6	83.7	82.8	82.2	80.2	78.6	80.8
1999	76.9	75.4	77.7	79.5	82.4	82.1	81.5	82.7	83.1	81.5	79.8	76.9	80.0
2000	75.7	76.7	76.6	79.4	80.6	82.0	82.9	82.8	82.0	81.8	79.5	78.4	79.9
2001	77.3	76.9	79.2	80.2	82.7	82.8	82.9	83.2	82.9	82.1	79.4	78.3	80.7
2002	78.1	77.6	79.1	79.3	81.1	83.1	82.9	83.1	83.0	81.9	80.8	78.6	80.7
2003	77.9	77.9	79.8	79.6	81.4	82.1	82.2	82.3	83.4	81.9	79.8	78.0	80.5
2004	76.2	76.7	77.6	78.9	79.5	82.8	82.5	83.9	83.2	82.1	79.5	78.4	80.1
POR= 54 YRS	76.6	76.8	77.6	79.0	80.6	82.0	82.2	82.5	82.2	81.6	79.7	77.9	79.9

HEATING DEGREE DAYS (base 65°F) 2004 SAN JUAN, PR (SJU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1983-84	0	0	0	0	0	0	0	0	0	0	0	0	0
1984-85	0	0	0	0	0	0	0	0	0	0	0	0	0
1985-86	0	0	0	0	0	0	0	0	0	0	0	0	0
1986-87	0	0	0	0	0	0	0	0	0	0	0	0	0
1987-88	0	0	0	0	0	0	0	0	0	0	0	0	0
1988-89	0	0	0	0	0	0	0	0	0	0	0	0	0
1989-90	0	0	0	0	0	0	0	0	0	0	0	0	0
1990-91	0	0	0	0	0	0	0	0	0	0	0	0	0
1991-92	0	0	0	0	0	0	0	0	0	0	0	0	0
1992-93	0	0	0	0	0	0	0	0	0	0	0	0	0
1993-94	0	0	0	0	0	0	0	0	0	0	0	0	0
1994-95	0	0	0	0	0	0	0	0	0	0	0	0	0
1995-96	0	0	0	0	0	0	0	0	0	0	0	0	0
1996-97	0	0	0	0	0	0	0	0	0	0	0	0	0
1997-98	0	0	0	0	0	0	0	0	0	0	0	0	0
1998-99	0	0	0	0	0	0	0	0	0	0	0	0	0
1999-00	0	0	0	0	0	0	0	0	0	0	0	0	0
2000-01	0	0	0	0	0	0	0	0	0	0	0	0	0
2001-02	0	0	0	0	0	0	0	0	0	0	0	0	0
2002-03	0	0	0	0	0	0	0	0	0	0	0	0	0
2003-04	0	0	0	0	0	0	0	0	0	0	0	0	0
2004-	0	0	0	0	0	0	0	0	0	0	0	0	0

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COOLING DEGREE DAYS (base 65°F) 2004 SAN JUAN, PR (SJU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1975	375	346	420	446	501	543	565	556	521	519	450	395	5637
1976	357	342	375	413	485	506	566	579	557	548	485	419	5632
1977	382	360	419	463	499	514	491	502	487	532	469	452	5570
1978	420	404	464	462	499	526	566	570	575	555	513	459	6013
1979	426	393	404	436	512	571	582	564	511	569	477	432	5877
1980	414	402	446	479	590	610	633	628	591	608	522	494	6417
1981	467	407	499	468	578	584	626	587	588	574	505	429	6312
1982	423	364	412	470	504	543	573	615	593	590	466	405	5958
1983	426	424	541	509	573	621	604	593	583	582	502	468	6426
1984	415	377	479	508	503	528	553	553	522	517	417	389	5761
1985	352	349	368	403	483	547	579	577	508	459	429	371	5425
1986	329	315	390	428	444	501	535	538	534	517	429	401	5361
1987	366	354	407	490	521	508	556	588	571	575	477	464	5877
1988	377	341	403	470	547	587	581	558	523	522	453	375	5737
1989	354	313	353	421	482	495	529	543	525	526	456	443	5440
1990	383	325	362	430	526	526	551	561	559	539	478	392	5632
1991	379	363	428	430	503	551	571	593	558	547	455	380	5758
1992	383	393	435	479	512	556	547	555	524	596	482	454	5916
1993	391	383	450	469	535	557	561	603	550	557	483	440	5979
1994	404	370	449	448	559	541	563	592	556	562	493	461	5998
1995	412	389	387	475	518	557	602	611	603	545	486	472	6057
1996	414	381	444	430	480	495	519	529	510	524	421	372	5519
1997	353	316	369	467	518	561	569	567	555	545	485	473	5778
1998	430	391	415	446	523	550	555	589	538	541	462	428	5868
1999	374	297	402	443	547	515	519	558	549	516	449	379	5548
2000	339	345	366	443	492	517	560	557	516	530	443	424	5532
2001	388	342	448	464	555	540	563	569	544	535	437	421	5806
2002	410	359	445	435	503	548	562	566	549	530	483	429	5819
2003	405	370	465	446	517	517	542	543	560	532	453	410	5760
2004	351	348	397	421	457	541	553	593	558	538	442	423	5622

SNOWFALL (inches) 2004 SAN JUAN, PR (SJU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1975-76	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1976-77	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1977-78	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1978-79	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1979-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1980-81	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1981-82	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1988-89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1989-90	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T
1990-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1993-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1996-97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1999-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2000-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2002-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
POR= 48 YRS	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T

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REFERENCE NOTES:

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2004  
SAN JUAN,  
PUERTO RICO (SJU)

San Juan, located on the north coast of the island of Puerto Rico, is surrounded by the waters of the Atlantic Ocean and San Juan Bay. Local custom assigns the name San Juan to the old city which lies right on the coast, but the modern metropolitan area extends inland about 12 miles. These inland sections have a temperature and rainfall regime significantly different from the coastal area. Isla Verde Airport, where weather observations are made, lies on the coast about 7 miles east of old San Juan. The surrounding terrain is level with a gradual upslope inland. Mountain ranges, with peak elevations of 4,000 feet, extend east and west through the central portion of Puerto Rico, and are located 15 to 20 miles east and south of San Juan. These mountain ranges have a decided influence on the rainfall of the San Juan metropolitan area, and on the entire island in general.

The climate is tropical maritime, characteristic of all tropical islands. The predominant easterly trade winds, modified by local effects such as the land and sea breeze and the particular island topography, are a primary feature of the climate of San Juan and have a significant influence on the temperature and rainfall. During daylight hours the wind blows almost constantly off the ocean. Usually, after sunset the wind shifts to the south or southeast, off land. This daily wind variation is a contributing factor to the delightful climate of the city. The annual temperature range is small with about a 5-6 degree difference between the temperatures of the warmest and coldest months. The inland sectors have warmer afternoons and cooler nights. In the interior mountain and valley regions even greater daily and annual ranges of temperature occur. The highest temperatures recorded in Puerto Rico have exceeded 105 degrees and the lowest have been near 40. Sea water temperatures range from 78 degrees in March to about 83 degrees in September.

Although rainfall in San Juan is nearly 60 inches, the geographical distribution of rainfall over the island shows the heaviest rainfall, of about 180 inches per year, in the Luquillo Range, only 23 miles distant from San Juan. The driest area, with annual rainfall of 30 to 35 inches, is located in the southwest corner of the island. Rain showers occur mostly in the afternoon and at night. The nocturnal showers, usually light, are a characteristic feature of the San Juan rainfall pattern. Rainfall is generally of the brief showery type except for the continuous rains occurring with the passage of tropical disturbances, or when the trailing edge of a cold front out of the United States reaches Puerto Rico. This normally occurs from about November to April.

Puerto Rico is in the tropical hurricane region of the eastern Caribbean. The hurricane season begins June 1 and ends November 30. Only a few hurricanes have passed close enough to San Juan to produce hurricane force winds or damage.

Mild temperatures, refreshing sea breezes in the daytime, plenty of sunshine, and adequate rainfall make the climate of San Juan most enjoyable for tourists and residents alike.

# STATION LOCATION

SAN JUAN, PUERTO RICO

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE	REMARKS
						GROUND												
						SEA LEVEL	GROUND	WIND INSTRUMENT	EXTREME THERMOMETER S	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	RAIN GAUGE	WINDHOLE RAIN GAUGE	8 INCH RAIN GAUGE			
*NOTE:																		
<u>AIRPORT</u>																		
Administration Building Naval Air Station Isla Grande Airport	3/?/40	11/07/49		18°27'	66°06'	15	52	30	30							%26	%	4-inch rain gage.
Terminal Building Isla Grande Airport	11/08/49	5/23/55	0.3 mi. W	18°27'	66°06'	9	a73	54	54	65	53						a.	69 ft. to 12/15/50.
Administration Building Isla Verde Airport	5/24/55	05/01/96	6.5 mi. E	18°26'	66°00'	c13	e20 j20	f88	g88	88 i87	h88 m69				b4 k9		b.	Telepsychrometer (7') 5/24/55-12/6/63. Hygro. comm. 1700' NNE of tele. site 12/6/63. c. 15 ft. to 12/6/63. e. 35 ft. to 4/7/61. f. 7 ft. to 12/15/64. g. Added as standby equipment 12/6/63. h. 4 ft. to 11/10/69. i. Minor move 1/21/78. j. Minor move 10/07/83. k. Minor move & type change 10/07/83. m. Lowered 06/15/88.
Isla Verde Int'l AP	05/01/96	Present	NA	18°26'	66°00'	n7										S	n.	ASOS Commissioned 05/01/96 Ground elevation.

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\* NOTES: For earlier station history see previous editions.